

CLAIMS

- 1) An isolated polynucleotide hybridisable to a polynucleotide selected from the group consisting of SEQ ID NO: 33 - 64 or from the group consisting of SEQ ID NO: 1 - 32
- 5 2) An isolated polynucleotide according to claim 1 hybridisable under high stringency conditions to a polynucleotide selected from the group consisting of SEQ ID NO: 33 - 64 or from the group consisting of SEQ ID NO: 1 - 32
- 10 3) An isolated polynucleotide according to claims 1 or 2 obtainable from a filamentous fungus.
- 4) An isolated polynucleotide according to claim 3 obtainable from *A. niger*.
- 5) An isolated polynucleotide encoding a polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO: 65 - 96 or functional equivalents thereof.
- 15 6) An isolated polynucleotide encoding at least one functional domain of a polypeptide selected from the group consisting of SEQ ID NO: 65 - 96 or functional equivalents thereof.
- 7) An isolated polynucleotide comprising a nucleotide sequence selected from the group consisting of SEQ ID NO: 33 - 64 or from the group consisting of SEQ ID NO: 1 - 32 or functional equivalents thereof
- 20 8) An isolated polynucleotide selected from the group consisting of SEQ ID NO: 33 - 64 or from the group consisting of SEQ ID NO: 1 - 32.
- 9) A vector comprising a polynucleotide sequence according to claims 1 to 8.
- 10) A vector according to claim 9 wherein said polynucleotide sequence according to claims 1 to 8 is operatively linked with regulatory sequences suitable for expression of said polynucleotide sequence in a suitable host cell.
- 25 11) A vector according to claim 10 wherein said suitable host cell is a filamentous fungus

- 12) A method for manufacturing a polynucleotide according to claims 1 – 8 or a vector according to claims 9 to 11 comprising the steps of culturing a host cell transformed with said polynucleotide or said vector and isolating said polynucleotide or said vector from said host cell.
- 5      13) An isolated polypeptide selected from the group consisting of SEQ ID NO: 65 - 96 or functional equivalents thereof.
- 14) An isolated polypeptide according to claim 13 obtainable from *Aspergillus niger*
- 10     15) An isolated polypeptide obtainable by expressing a polynucleotide according to claims 1 to 8 or a vector according to claims 9 to 11 in an appropriate host cell, e.g. *Aspergillus niger*.
- 16) Recombinant pectinase comprising a functional domain of a PEC 1 - PEC 32 polypeptide.
- 15     17) A method for manufacturing a polypeptide according to claims 13 to 16 comprising the steps of transforming a suitable host cell with an isolated polynucleotide according to claims 1 to 8 or a vector according to claims 9 to 11, culturing said cell under conditions allowing expression of said polynucleotide and optionally purifying the encoded polypeptide from said cell or culture medium.
- 20     18) A recombinant host cell comprising a polynucleotide according to claims 1 to 8 or a vector according to claims 9 to 11.
- 19) A recombinant host cell expressing a polypeptide according to claims 13 to 16.
- 20     21) Purified antibodies reactive with a polypeptide according to claims 13 to 16.
- 25     21) Fusion protein comprising a polypeptide sequence according to claims 13 to 16.